

## Example 5

Solution A:	
Glycine .....	gm-- 25.0
Ethylene diamine tetraacetate (sodium salt) .....	gm-- 36.3
Distilled water .....	ml-- 100.0
Solution B:	
Sodium nitroprusside .....	gm-- 0.8
Polyvinylpyrrolidone/vinyl acetate copolymer (50% in ethanol) .....	ml-- 6.5
Anhydrous ethanol .....	ml-- 18.5
Dimethylsulfoxide .....	ml-- 39.0
Chloroform .....	ml-- 34.0
Aerosol (25%) in ethanol .....	ml-- 0.4
Organic phosphate ester of anionic detergent (10%) in ethanol .....	ml-- 0.7

## Example 6

Solution A:	
Glycine .....	gm-- 25.0
Na <sub>3</sub> PO <sub>4</sub> ·12H <sub>2</sub> O .....	gm-- 28.0
Na <sub>2</sub> HPO <sub>4</sub> , anhydrous .....	gm-- 12.0
Distilled water .....	ml-- 100.0
Solution B:	
Sodium nitroprusside .....	gm-- 0.8
Anhydrous ethanol .....	ml-- 18.5
Dimethylsulfoxide .....	ml-- 39.0
Chloroform .....	ml-- 34.0
Polyvinyl acetate .....	ml-- 6.5
Organic phosphate ester of anionic detergent (10%) in ethanol .....	ml-- 0.7
Aerosol (25%) in ethanol .....	ml-- 0.4

## Example 7

Solution A:	
Glycine .....	gm-- 25.0
Na <sub>3</sub> PO <sub>4</sub> ·12H <sub>2</sub> O .....	gm-- 28.0
Na <sub>2</sub> HPO <sub>4</sub> , anhydrous .....	gm-- 12.0
Distilled water .....	ml-- 100.0
Solution B:	
Sodium nitroprusside .....	gm-- 0.8
Anhydrous ethanol .....	ml-- 18.5
Dimethylsulfoxide .....	ml-- 39.0
Chloroform .....	ml-- 34.0
Organic phosphate ester of anionic detergent (10%) in ethanol .....	ml-- 0.7
Aerosol (25%) in ethanol .....	ml-- 0.4
Interpolymer of methyl vinyl ether and maleic anhydride .....	gm-- 1.0

## Example 8

Solution A:	
Glycine .....	gm-- 25.0
Na <sub>3</sub> PO <sub>4</sub> ·12H <sub>2</sub> O .....	gm-- 28.0
Na <sub>2</sub> HPO <sub>4</sub> , anhydrous .....	gm-- 12.0
Distilled water .....	ml-- 100.0
Solution B:	
Sodium nitroprusside .....	gm-- 0.5
Anhydrous methanol .....	ml-- 40.0
Aerosol (25%) in ethanol .....	ml-- 1.0
Ethyl cellulose .....	gm-- 0.1
Anhydrous ethanol .....	ml-- 10.0

## Example 9

Solution A:	
Glycine .....	gm-- 25.0
Na <sub>3</sub> PO <sub>4</sub> ·12H <sub>2</sub> O .....	gm-- 28.0
Na <sub>2</sub> HPO <sub>4</sub> .....	gm-- 12.0
Distilled water .....	ml-- 100.0
Solution B:	
Sodium nitroprusside .....	gm-- 0.4
Polyvinylpyrrolidone/vinyl acetate copolymer .....	ml-- 3.25
Anhydrous ethanol .....	gm-- 9.25
Ethyl lactate .....	ml-- 19.0
Chloroform .....	ml-- 17.5
Organic phosphate ester of anionic detergent (10%) in ethanol .....	ml-- 0.35
Aerosol (25%) in ethanol .....	ml-- 0.2

The preparation of the impregnating solutions and reagent strips based on the foregoing Examples 2 through 9 are carried out in the manner described in Example 1.

In use, an impregnated strip prepared as described above is dipped in the liquid specimen to be tested. When contacted with a fluid specimen containing ketone bodies, the test strip will give a positive color reaction. The color resulting on the strip is then compared with a precalibrated color chart for determination of the quantitative amount of ketone bodies contained on the specimen tested. The color developed on the strips in the presence of ketone bodies varies in intensity according to the amount of ketone bodies present in the specimen, i.e., from very light purple indicating the presence of 10-20 mg. percent of ketone bodies to a very dark purple indicating over 100 mg. percent. Utilizing the diagnostic strips of this invention, a positive color reaction will develop within 15 to 30 seconds in the presence of ketone bodies.

It is to be understood that other bibulous materials, e.g., small sticks of wood, etc., as well as other methods for applying the impregnating solutions to the test strips and for drying the thus impregnated strips may also be employed.

It is obvious that certain changes may be made in the above compositions and methods without departing from the spirit and scope of the invention and it is intended that all matter contained in the foregoing description shall be interpreted as illustrative and not in a limiting sense.

It is also understood that other modifications may be made without departing from the spirit and scope of the appended claims.

We claim:

1. A process for the preparation of a test device for the detection of ketone bodies in body fluids which comprises:

(A) impregnating a bibulous carrier with an aqueous solution of a buffer providing a pH range of from about 8 to about 10 and a water soluble amino acid,

(B) drying the impregnated bibulous carrier;

(C) further impregnating the bibulous carrier in the area previously impregnated with the buffer and amino acid with a solution, in an organic solvent, of

(1) an alkali metal nitroprusside, and

(2) a polymeric substance selected from the group consisting of polyvinylpyrrolidone-vinyl acetate copolymers, methyl vinyl ether-maleic anhydride copolymers, polyethylene glycol, polyvinyl acetate, methyl vinyl ether-maleic anhydride interpolymers, vinyl pyrrolidone-styrene copolymers and water soluble acrylic copolymers; and

(D) removing the solvent from the further impregnated bibulous carrier.

2. A process as in claim 1 wherein the amino acid is selected from the group consisting of glycine and alanine.

3. A process as in claim 1 wherein the buffer is a mixture of disodium phosphate and trisodium phosphate.

4. A process as in claim 1 wherein the solvent is selected from the group consisting of dimethyl sulfoxide, methanol, ethanol, dimethyl formamide and mixtures thereof.

5. A process as in claim 1 wherein the organic film-forming polymeric substance has a pH on the acid side.

6. A test device for the detection of ketone bodies in body fluids prepared by a process which comprises:

(A) impregnating a bibulous carrier with an aqueous solution of a buffer providing a pH range of from about 8 to about 10 and a water soluble amino acid;

(B) drying the impregnated bibulous carrier;

(C) further impregnating the bibulous carrier in the area previously impregnated with the buffer and amino acid with a solution, in an organic solvent, of

(1) an alkali metal nitroprusside, and